

REMARKS/ARGUMENTS

This Amendment is being filed in response to a first Official Action on a Request for Continued Examination (RCE) for the above-identified, present application. The first Official Action of this RCE objects to Claims 18, 27 and 37 for including an alleged informality, and rejects Claims 14-16 under 35 U.S.C. § 112, second paragraph, for being indefinite. In response, Applicants have amended Claims 14-16, 18, 27 and 37 to address the noted, alleged issues with those claims; and in view of the respective amendments, Applicants respectfully submit that the objection to or rejection of Claims 14-16, 18, 27 and 37 is overcome.

In addition to the foregoing, the first Official Action continues to reject all of the pending claims, namely Claims 1-7, 9 and 11-39, under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2005/0086318 to Aubault, in view of U.S. Patent No. 6,157,982 to Deo, and further in view of U.S. Patent No. 6,449,695 to Berenzi. As explained below, however, Applicants continue to maintain that the claimed invention is patentably distinct from all of Aubault, Deo and Berenzi, taken individually or in any proper combination, as explained in greater detail below. Nonetheless, Applicants have amended independent Claims 1, 19 and 29 (but not independent Claims 12 and 39) to further clarify the claimed invention. In view of the amendments to the claims and the remarks presented herein, Applicants respectfully request reconsideration and allowance of all of the pending claims of the present application.

As previously explained, Aubault discloses a system and method for transmitting objects between a server and a client terminal using a cache management. As disclosed, the client terminal maintains a cache memory for storing objects transmitted by the server. The system further includes, upstream of the client terminal, such as in the server or an intermediate proxy server, management of a list of objects present in the cache memory of the respective client terminal. By managing the list upstream of the client terminal, Aubault purports to limit exchange of data concerning the content of the cache memory between the client terminal and the server.

As further disclosed by Aubault, on receiving an object from the server, the client terminal may store the object in the cache memory if a filling ratio of the cache memory is below a threshold. If the filling ratio is above the threshold, however, the terminal evaluates relevance criterion for the received object. Then, if the cache memory includes objects with relevance criterion lower than that of the received object, the terminal deletes the less relevant object from the cache memory and replaces it with the received object. Otherwise, if the cache memory does not include a less relevant object, the client terminal rejects the received object.

Independent Claim 12 recites an apparatus including a processor operable within a terminal and configured to send, to a network entity located remote from the terminal, a status of at least one piece of content stored in memory of the terminal, where each piece of content is associated with parameters including a client expiration time and a deletion priority value. In addition, the processor is configured to receive one or more instructions from the network entity based upon the status and the associated parameters to at least partially control storage of the piece(s) of content in memory of the terminal.

The Official Action continues to allege that Aubault discloses all of the recited features of independent Claim 12, but concede that Aubault does not teach or suggest a remote network entity configured to at least partially control storage of content in memory of the terminal. For this feature, the Official Action continues to cite Deo, and allege that one skilled in the art would have been motivated to modify Aubault per Deo to decrease the processing burden on a terminal. Further, the Official Action continues to concede that neither Aubault nor Deo, taken individually or in any proper combination, teaches or suggests content associated with a content expiration time, and controlling storage of content based on such an expiration time. For this feature, the Official Action cites Bereznyi, and alleges that one skilled in the art would have been motivated to modify the alleged combination of Aubault and Deo per Bereznyi to increase flexibility in the Aubault/Deo combination as to how the combination manages a terminal's memory. As explained below, Applicants respectfully disagree.

A. Client Expiration Time and Deletion Priority Value

In contrast to independent Claim 12, as conceded in the final Official Action, Aubault does not teach or suggest content associated with multiple parameters including a client expiration time and a deletion priority value, and controlling storage of that content based on those parameters. The Official Action nonetheless alleges that Bereznyi discloses this feature, and that it would have been obvious to one skilled in the art to modify Aubault to include it. As motivation, the Official Action alleges that adding a client expiration time to the Aubault system and method would “give Aubault [and Deo’s combined] system more flexibility on how it manages the terminal’s memory.” Official Action of Dec. 13, 2007, page 8. As further evidence, the Official Action states as follows:

Further, because Aubault and Deo teaches [sic] methods of memory management, it would have been obvious to one of ordinary skill in the art to try Bereznyi’s expiration times as a method to manage memory, as a person of with [sic] ordinary skill has good reason to pursue known options within his or her technical grasp.

Id. Applicants respectfully disagree on both points, and submit that even if Aubault and Bereznyi did disclose respective elements of independent Claim 12 (although expressly not admitted), not only does the Official Action fail to provide a sufficient reason for the combination of Aubault and Bereznyi, but there is no apparent reason for their combination.

1. Official Action fails to Sufficiently Support Combination

Initially, Applicants acknowledge that the Supreme Court’s recent decision in *KSR Int’l. Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 82 USPQ2d (BNA) 1385 (2007), rejected a rigid application of the “teaching, suggestion or motivation” (TSM) test. Nonetheless, the Court did state that obviousness often requires determining whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue, and that to facilitate review, this analysis should be made explicit. *See KSR Int’l. Co.*, 127 S.Ct. at 1740–41, 82 USPQ2d (BNA) at 1396. Even further, the Court noted that “[R]ejections on obviousness grounds cannot be sustained by mere conclusory

statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.*, 127 S.Ct. at 1740-41, 82 USPQ2d (BNA) at 1396, *citing In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d (BNA) 1329 (Fed. Cir. 2006) (emphasis added).

As clearly explained by the Supreme Court, then, any finding of obviousness should be based on an apparent reason to combine the prior art, and must be supported by more than mere conclusory statements. In the instant case, the Examiner attempts to support the alleged combination of Aubault (and Deo in combination) and Bereznyi by merely asserting that one skilled in the art would have been led to the combination to realize increased flexibility, or that it would have been obvious to one skilled in the art to try the memory management scheme of Bereznyi in the system of Aubault (and Deo in combination). However, the Official Action fails to provide any articulated reasoning with any rational underpinning to support these conclusions.

More particularly, the Official Action fails to provide any articulated reasoning with any rational underpinning to support how modifying Aubault per Bereznyi to control storage of content based on both relevance and expiration time results in a more flexible system than that which controls storage of content based on just relevance; Applicants noting and explaining further below, that such a combination cannot change the principle of operation of Aubault. Further, the Official Action fails to provide any such articulated reasoning explaining the aforementioned obvious to try conclusion; Applicants noting that the PTO’s *Examination Guidelines for Determining Obviousness*, from which this conclusion appears based, requires that the Official Action provide four articulated findings to support this conclusion, and that if any of those findings cannot be made, “then this rationale cannot be used to support a conclusion that a claim would have been obvious.” 72 Fed. Reg. 57532 (Oct. 10, 2007).

2. No Apparent Reason to Combine Aubault and Bereznyi

Moreover, as explained in response to the first Official Action, Aubault discloses a system and method that bases object transmission and storage on the visual relevance of that object to the user of the client terminal to which the object is transmitted. In this

regard, Aubault itself makes clear that the transmission and storage of objects are based on the visual relevance of those objects to the user, regardless of the time at which those objects are transmitted or stored, similar to the manner allegedly disclosed by Bereznyi. Even further evidencing the visual relevance of an object, Aubault explicitly discloses that the client terminal rejects objects whose visual relevance is less than all of the objects stored in the cache memory (provided the fill ratio of the cache memory is above a threshold). Clearly, should the Aubault system manage its cache memory based on an expiration time, newly transmitted objects would take precedence over already stored objects even if those objects are considered less relevant. This type of modification would therefore change the principle of operation of Aubault in favoring more visually-relevant, stored objects over less visually-relevant, received objects. And as stated in MPEP § 2143.01, “[a] proposed modification cannot change the principle of operation of a reference” to support a § 103 rejection. Applicants therefore respectfully again submit that it would not have been obvious to one skilled in the art to modify Aubault (in combination with Deo) per Bereznyi, as alleged.

As also previously explained, the prior final Official Action did not dispute that Aubault discloses a server determining which objects are transmitted to a client terminal, and the client terminal determining what objects to store in its cache memory, based on visual relevance of those objects to the user. However, the final Official Action alleges that such features are only features of “exemplary embodiments” of Aubault’s disclosed system, and that the principle of operation of Aubault would not in fact be changed by modifying Aubault per Bereznyi. As previously noted, however, to the extent that the aforementioned features of Aubault are only considered “exemplary embodiments,” it is these “exemplary embodiments” that are being cited for allegedly disclosing features of the claimed invention. It is these “exemplary embodiments” of Aubault that the Official Action seeks to modify (per Bereznyi) to teach Applicants’ claimed invention. And since, as explained above, the proposed modification would result in a change of the principle of operation of the Aubault system being modified, such a modification cannot properly support a § 103 rejection.

B. Sending a Status of Stored Content to Remote Network Entity

In further contrast to independent Claim 12, Aubault does not teach or suggest an apparatus receiving, from a remote terminal, a status of content stored in memory of the terminal, and sending one or more instructions to the terminal to thereby control storage of content in memory of the terminal. The Official Action again concedes that Aubault does not teach or suggest a remote network entity controlling the storage of content by a terminal. The Official Action nonetheless continues to allege that Deo discloses this feature, and that it would have been obvious to one skilled in the art to modify Aubault to include it to thereby teach the claimed invention. As motivation, the Official Action alleges that modifying Aubault per Deo would “decrease the processing burden of a terminal that has less processing power available than a computer it is networked with.” Applicants respectfully disagree, and submit that even if Aubault and Deo did disclose respective elements of independent Claim 12 (although expressly not admitted), there is not any apparent reason for the alleged combination of Aubault and Deo.

As explained in response to the first Official Action, Deo discloses a system and method for remotely managing memory in a portable information device from an external computer. As disclosed, the device memory is mapped into a portion of the computer memory to create a virtual device memory therein. To effectuate a change in the device memory, then, a user enters programming changes to be made to the information device. The programming changes alter the virtual device memory within the computer memory, and a memory manager resident in the computer determines what memory transactions are effective to alter the virtual device memory. The computer generates a serial stream of data indicative of memory transactions to effectuate a corresponding alteration of the device memory, and the data is transmitted to the information device to carry out the respective memory transactions and update the device memory.

As explained above, the terminal of Aubault makes decisions as to storing content in and deleting content from its memory, and notifies the server of those decisions (cache update) so that the server may forego sending content to the terminal already stored in the terminal’s cache (no instructions to the terminal). In this instance, as the terminal makes decisions that are otherwise unknown to the server, the terminal notifies the server of

those decisions. In the system of Deo, on the other hand, the computer (analogous to the server of Aubault) makes decisions as to storing content in and deleting content from memory of the portable information device (analogous to the terminal of Aubault). Instead of making those decisions based on any notification of content status from the portable information device, however, the computer maps the device's memory; thereby negating any need for the computer receiving, from the portable information device, the status of content stored in memory of that device.

At best, then, one could argue that Deo reduces processing burden on its portable information device by mapping memory of that device at the computer, and having the computer control storage of content in memory of that device. But by adding these features (mapping memory of the terminal and controlling storage of content) to the server (computer) of Aubault, the terminal (portable information device) no longer needs to notify the server (computer) of those decisions or otherwise notify the server of the status of content in its memory since the server will already have that information. Thus, it would not have been obvious to one skilled in the art to combine Aubault per Deo to realize an apparatus that receives, from a remote terminal, a status of content stored in memory of the terminal, and that sends one or more instructions to the terminal based on that status to thereby control storage of content in memory of the terminal.

Applicants therefore respectfully submit that independent Claim 12, and by dependency Claims 13-18, is patentably distinct from Aubault, Deo and Berenzi, taken individually or in any proper combination. Amended or previously presented independent Claims 1, 19, 29 and 39 recite subject matter similar to that of independent Claim 12, including the aforementioned controlling storage of content at a terminal based on multiple parameters associated with the content, and sending instructions from a remote network entity or apparatus to control storage of such content. Thus, Applicants also respectfully submit that amended or previously presented independent Claims 1, 19, 29 and 39, and by dependency Claims 2-7, 9, 11, 20-28 and 30-38, are also patentably distinct from Aubault, Deo and Berenzi, taken individually or in any proper combination, for at least the reasons given above with respect to independent Claim 12.

C. *Dependent Claims*

In addition to the foregoing reasons, Applicants respectfully submit that various ones of dependent Claims 2-7, 9, 11, 13-18, 20-28 and 30-38 recite features further patentably distinct from Aubault, Deo and Berenznyi, taken individually or in any proper combination. Examples of such dependent claims, including Claims 14-16, 21-23, 25, 31-33 and 35, are explained below.

1. *Dependent Claims 14-16, 21-23 and 31-33*

As to dependent Claims 14-16, 21-23 and 31-33, Applicants respectfully submit that neither Aubault nor Berenznyi teach or suggest combining application of a deletion priority value and client expiration time such that piece(s) content are deleted based on those piece(s) content having the lowest relevance from among piece(s) of content exceeding their respective expiration time(s). And even if one could argue that Aubault discloses a deletion priority value, and could argue that Berenznyi discloses a client expiration time, not only does the Official Action fail to provide a sufficient reason for their combination in the manner alleged, but there is no apparent reason for such a combination.

(a) *Official Action fails to Sufficiently Support Combination*

Similar to the manner above, the Official Action alleges an “obvious to try” rationale for the alleged combination of Aubault and Berenznyi. In this regard, the Official Action attempts to support the alleged combination by merely asserting it would have been obvious to try the particular combination of deletion priority value and client expiration time since both are individually within the technical grasp of one of ordinary skill in the art. However, the Official Action fails to provide any articulated reasoning with any rational underpinning to support this conclusion. Again, Applicants note that the PTO’s *Examination Guidelines for Determining Obviousness* requires that the Official Action provide four articulated findings to support this type of conclusion, and that if any of those findings cannot be made, then that rationale cannot be used to support an obviousness rejection. 72 Fed. Reg. 57532 (Oct. 10, 2007).

(b) *No Apparent Reason to Combine Aubault and Bereznyi*

Applicants further respectfully submit that there is no apparent reason to modify Aubault per Bereznyi to combine application of the two parameters such that piece(s) content are deleted based on those piece(s) content having the lowest relevance from among piece(s) of content exceeding their respective expiration time(s), as per dependent Claims 14-16, 21-23 and 31-33. Again, at best, one could argue that the combination of Aubault and Bereznyi teach the separate deletion of less relevant objects, as necessary, and the additional deletion of older objects whose expiration time has been exceeded. Dependent Claims 14-16, 21-23 and 31-33, on the other hand, recite deletion of content with a higher deletion priority from among that content whose client expiration time has been exceeded.

2. *Dependent Claims 25 and 35*

Further as to dependent Claims 25 and 35, Applicants yet again note that the Official Action continues to cite the same portion of Bereznyi to support disclosure of a client expiration time and a server expiration time. Applicants again respectfully submit, however, that even if Bereznyi does disclose an expiration time for the deletion of content from a cache, Bereznyi does not teach or suggest multiple expiration times associated with a piece of content. That is, Bereznyi does not teach or suggest both a client expiration time (from which content may be deleted from memory of a terminal), and a server expiration time (from which content may be deleted from the network entity that sends the content to the terminal), as recited by dependent Claims 25 and 35.

The Official Action yet again alleges an “obvious to try” rationale for the alleged combination of Aubault and Bereznyi to teach Claims 25 and 35. In formulating such a rationale, the Official Action appears to be contradicting an earlier allegation as to Bereznyi. In this regard, the Official Action alleges that Bereznyi discloses a client expiration time and a server expiration time. Official Action of Dec. 13, 2007, pages 8 and 14. The Official Action then seemingly concedes that Bereznyi does not disclose both a client expiration time and a server expiration time, instead alleging that it would

have been obvious to one skilled in the art to implement both such expiration times in a system with multiple entities (having an expiration time for each entity). Clearly if Bereznyi discloses client and server expiration times, the “obvious to try” rationale is moot. Should the Examiner maintain this rejection of the claims, Applicants at a minimum respectfully request clarification as to the position taken with respect to Bereznyi on this matter.

Presuming the Official Action is asserting that Bereznyi discloses a client expiration time, and that while Bereznyi does not also disclose a server expiration time, this would have been obvious for one skilled in the art to try, Applicants respectfully disagree and again submit that not only does the Official Action fail to provide a sufficient reason for their combination in the manner alleged, but there is no apparent reason for such a combination.

(a) Official Action fails to Sufficiently Support Combination

Again, the Official Action alleges an “obvious to try” rationale for the alleged combination of Aubault and Bereznyi. In this regard, the Official Action attempts to support the alleged combination by merely asserting it would have been obvious to try associating content with both a client expiration time and server expiration time in a system with multiple entities may need an expiration time for each entity. Also again, however, the Official Action fails to provide any articulated reasoning with any rational underpinning to support this conclusion; the Official Action still failing to provide the four articulated findings required by PTO’s *Examination Guidelines for Determining Obviousness*.

(b) No Apparent Reason to Combine Aubault and Bereznyi

Applicants further respectfully submit that there is no apparent reason to modify Aubault per Bereznyi to include content associated with both a client expiration time and a server expiration time. As indicated above, the Official Action asserts that a system with multiple entities may need an expiration time for each entity. To support an obviousness rejection of Claims 25 and 35 based on an alleged combination of Aubault,

Bereznyi and Deo, however, the Official Action must provide more than a conclusory statement with respect to a generic multiple entity system, but must provide an apparent reason for including both expiration times in the particular combined system of Aubault, Bereznyi and Deo.

In a manner similar to that explained above, should the Aubault system manage memory of its server based on a server expiration time, older objects stored at the server may be deleted even though those objects may have or come to have a high relevance to the terminal. This type of modification would therefore impermissibly change the principle of operation of Aubault in favoring more visually-relevant objects over less visually-relevant objects, even if the more visually-relevant objects are older than the less visually-relevant objects. *See* MPEP § 2143.01. Applicants therefore respectfully again submit that it would not have been obvious to one skilled in the art to modify Aubault (in combination with Deo) per Bereznyi, as alleged.

For at least the foregoing reasons, Applicants respectfully submit that the rejection of Claims 1-39 as being unpatentable over Aubault, in view of both Deo and Bereznyi, is overcome.

CONCLUSION

In view of the amended claims and the remarks presented above, Applicants respectfully submit that the present application is in condition for allowance. As such, the issuance of a Notice of Allowance is therefore respectfully requested. In order to expedite the examination of the present application, the Examiner is encouraged to contact Applicants' undersigned attorney in order to resolve any remaining issues.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



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